A Quality Improvement Initiative Addressing STI Services Provided in Rural South Carolina Primary Care Clinics

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Disclosures

I receive research funding from NIH, HRSA, and ViiV Healthcare.
Health psychologist

Overcome “gaps” in prevention and treatment frameworks for infectious diseases (HIV, HPV, STIs, etc.)

Director of Healthy Futures Lab
http://www.healthyfutureslab.com

Director of Supporting Substance Use Disorder Services in South Carolina (SSUDS-SC) Center
Objectives

• Review trends in HIV and STIs in South Carolina
• Learn best practices in HIV and STI testing, including recommendations for multi-site extragenital STI testing
• Review basics of Pre-exposure Prophylaxis (PrEP) for HIV prevention
• Understand barriers to HIV and STI prevention and treatment in rural communities
• Learn about a pilot project to increase extragenital STI testing among PrEP patients in rural communities in South Carolina
Current State of the US HIV Epidemic

There were **36,801 NEW HIV DIAGNOSES** in the US and dependent areas in 2019. Of those:

- **69% (25,552)** were among gay and bisexual men*
- **2.3% (8,617)** were among heterosexuals
- **7% (2,508)** were among people who inject drugs

* Includes infections attributed to male-to-male sexual contact and injection drug use (men who reported both risk factors).

- ~1.2 million people in the US are living with HIV
- Around 15% of those are undiagnosed
- Annual number of new HIV infections has remained steady for many years 😞
- New infections have increased among some groups, including individuals from Hispanic and Latinx backgrounds
Lifetime Risk of HIV Diagnosis, by State
New HIV Diagnoses in the US and Dependent Areas for the Most-Affected Subpopulations, 2018

- Black/African American, Male-to-Male Sexual Contact: 9,444
- Hispanic/Latino, Male-to-Male Sexual Contact: 7,653
- White, Male-to-Male Sexual Contact: 6,372
- Black/African American Women, Heterosexual Contact: 3,758
- Black/African American Men, Heterosexual Contact: 1,739
- Hispanic Women/Latinas, Heterosexual Contact: 1,109
- White Women, Heterosexual Contact: 956
If current rates persist, **1 in 2 Black men who have sex with men** and **1 in 4 Latino men who have sex with men** in the US will be diagnosed with HIV during their lifetime.

-Centers for Disease Control & Prevention

Ending the HIV Epidemic: A Plan for the United States

**GOAL:**

HHS will work with each community to establish local teams on the ground to tailor and implement strategies to:

- **Diagnose** all people with HIV as early as possible.
- **Treat** people with HIV rapidly and effectively to reach sustained viral suppression.
- **Prevent** new HIV transmissions by using proven interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs).
- **Respond** quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them.

**75% reduction in new HIV infections in 5 years and at least 90% reduction in 10 years.**
Ending the HIV Epidemic: Priority Jurisdictions

- More than 50% of new HIV diagnoses occur in only 48 counties, Washington, DC, and San Juan, Puerto Rico

- Seven states have a substantial rural burden – 10% or more of their diagnoses in rural areas
Ending the HIV Epidemic: Four Pillars

- Diagnose
- Treat
- Prevent
- Respond
The Swiss Cheese Model of COVID-19 Defense

- Physical Distancing
- Face Masks
- Hand Hygiene
- Ventilation
- Contact Tracing
- Disinfection
- Health screenings/testing

Ian M Mackay
virologydownunder.com
Derived from @sketchplanator
Based on the Swiss cheese model of accident causation, by James T Reason, 1990
version 1.3
update: 12oct2020
The Swiss Cheese Model of Ending the HIV Epidemic?
Introducing HONESTLY
A National TV Commercial about HIV Prevention
Pre-Exposure Prophylaxis (PrEP): Critical Tool to End the HIV Epidemic

- PrEP = A once-a-day pill taken to prevent HIV
- Initially approved in 2012
- PrEP reduces risk of acquiring HIV through sex by ~99% if taken daily
- 74% risk reduction for injection drug use
- Most effective when combined with other prevention tools
- Long-acting injectables are here now too! (Apretude®)
Who is a candidate for PrEP?

Clinicians should recommend PrEP for individuals, including adolescents, who meet any of the following characteristics:

• Engage in **condomless sex** with **partners of unknown HIV status**
• Have partners who may have **multiple or anonymous sex partners**
• Engage in **sex at parties** or other high-risk venues (or have partners who do)
• Are involved with **transactional sex** (or have partners who do)
• Have been diagnosed with **>1 bacterial STI** in past 12 months
Clinicians should recommend PrEP for individuals, including adolescents, who meet any of the following characteristics:

- Are attempting to conceive with a partner who has HIV
- Are at ongoing risk of HIV during pregnancy (e.g., through inconsistent condom use with unknown partners, have sexual partner with unsuppressed HIV)
- Report injecting substances (e.g., drugs, hormones, silicone) (or have partners who do)
- Self-identify as being at-risk without disclosing specific risk behaviors
Who is a candidate for PrEP?

- Use this code with your phone's QR code reader to go directly to a mobile-friendly version of the guideline.
- This 1/4-Folded Guide is a companion to the New York State Department of Health AIDS Institute guideline PrEP to Prevent HIV and Promote Sexual Health. The full guideline is available at www.hivguidelines.org.

SCAN THIS for an excellent clinical pocket guideline!

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Truvada® vs Descovy®

<table>
<thead>
<tr>
<th>TDF/FTC VERSUS TAF/FTC AS PrEP</th>
<th>TDF/FTC</th>
<th>TAF/FTC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effectiveness</strong></td>
<td>All populations.</td>
<td>Cisgender MSM and transgender women [1].</td>
</tr>
<tr>
<td><strong>Renal safety</strong></td>
<td>- Potential effect on renal tubular function. Meta-analysis shows good safety.</td>
<td>- Improved renal biomarkers compared to TDF.</td>
</tr>
<tr>
<td></td>
<td>- Discontinue if confirmed Creatinine (CrCr) &gt;50 mg/L.</td>
<td>- Can be used with stage 3 CKD (CrCr 30–59 mL/min).</td>
</tr>
<tr>
<td><strong>Bone safety</strong></td>
<td>Potential decrease in bone mineral density. Meta-analysis shows good safety.</td>
<td>Favorable bone biomarkers compared with TDF.</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>Weight neutral.</td>
<td>Mild weight gain observed in studies.</td>
</tr>
<tr>
<td><strong>LDL cholesterol</strong></td>
<td>Small decreases.</td>
<td>Small increases.</td>
</tr>
<tr>
<td><strong>Dosing</strong></td>
<td>Daily dosing is preferred. On-demand dosing is an option in cisgender MSM.</td>
<td>Daily dosing only.</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>Will go off patent in 2020.</td>
<td>Currently similar to TDF/FTC.</td>
</tr>
</tbody>
</table>

1. Transgender women made up only 1% of the DISCOVER study population.
Long-acting Injectables for PrEP

2021 CDC Guidelines for PrEP

<table>
<thead>
<tr>
<th>Drug(s)</th>
<th>Brand name</th>
<th>Mode of administration</th>
<th>Dose</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emtricitabine/tenofovir</td>
<td>Truvada</td>
<td>Oral tablet</td>
<td>200 mg/300 mg</td>
<td>Once per day</td>
</tr>
<tr>
<td>disoproxil fumarate (TDF)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emtricitabine/tenofovir</td>
<td>Descovy</td>
<td>Oral tablet</td>
<td>200 mg/25 mg</td>
<td>Once per day</td>
</tr>
<tr>
<td>alafenamide (TAF)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cabotegravir</td>
<td>Apretude</td>
<td>Intramuscular injection</td>
<td>600 mg</td>
<td>Once every 2 months*</td>
</tr>
</tbody>
</table>

- Cabotegravir is a **long-acting integrase inhibitor** from ViiV
- Approved for **cisgender and transgender men and women** with no limitations based on type of sex they have
- Receive 2 intramuscular injections in the buttocks administered 1 month apart, and then every 2 months afterwards
- Every-other-month injections can be given within a **seven-day window** before or after the scheduled dose
- If a person misses an injection by more than a week, they can substitute daily cabotegravir pills for up to two months
PrEP Care System: Screening, Initiation, Follow-Up

I. Screening

Engagement
- HIV Risk Assessment
- Education on PrEP Basics
- How it Works
- Adherence
- Side Effects

Initial Clinical Evaluation
- Assessment of Indications for PrEP
- Brief History
  - Signs/Symptoms of Acute HIV/STI
  - Kidney Disease
  - Medication Review
- Labs
  - HIV Blood Test
  - Screen for STIs, HBV, and HCV
  - Kidney Function
  - Pregnancy Test (women)

II. PrEP Initiation

Within 7 days after Screening
- Review PrEP Basics
- Prescribe PrEP (less than or equal to 90 days)

III. Follow-up

Every 3 Months
- HIV Blood Test
- Symptom Review
  - Acute HIV Infection
  - STI
  - Side Effects
- Prescribe PrEP
- Assessment / Counseling
  - HIV Risk Behavior
  - Adherence
  - Pregnancy Intent

Every 6 months
- Labs
  - STI (test more frequently for high-risk patients)
  - Kidney Function

Image from https://www.cdc.gov/hiv/effective-interventions/prevent/prep/index.html
Q = How are we doing with getting PrEP to all of those groups?  
A = NOT GOOD!

• 2015 – CDC estimated that ~1.5 million adults had indications for PrEP use
• PrEP use was *slightly* higher in 2018 when compared to 2012
  • Very low uptake in the South, including South Carolina
• Recent national survey among young Black men who have sex with men:
  • 78% reported they felt they were likely to be infected with HIV
  • 39% had heard of PrEP
  • Only 8% reported having ever taken PrEP

EVEN when we look at metro areas, missed opportunities in uptake
• Study of 778 MSM from Atlanta, Detroit, & NYC:
  • 31.2% reported current use of PrEP
  • Majority (61.2%) reported they had never used it for a variety of reasons (e.g., health concerns, safety concerns, cost issues, access issues)
Sexually Transmitted Infections (STIs) & HIV Risk

- The HIV and STIs epidemics are deeply intertwined and **syndemic**
- Complementary prevention strategies are needed
  - Increase uptake of **Pre-exposure Prophylaxis (PrEP)** for individuals at-risk for HIV
  - Ensuring access to and adherence for **Anti-Retroviral Therapy (ART)** for those already living with HIV
  - Routine **STI screening and HIV testing**
  - Promoting **consistent condom use** and other risk reduction strategies

THE
STATE OF STDs
IN THE
UNITED STATES, 2021

STDs remain far too high, even in the face of a pandemic.

Note: These data are considered preliminary prior to official 2021 close-out. Data also reflect the effect of COVID-19 on STD surveillance trends.

1.6 million cases of Chlamydia
4.7% decrease since 2017

696,764 cases of Gonorrhea
25% increase since 2017

171,074 cases of Syphilis
68% increase since 2017

2,677 cases of Syphilis among newborns
185% increase since 2017

Anyone who has sex could get an STD, but some groups are more affected:
- Young people aged 15-24
- Gay & bisexual men
- Pregnant people
- Racial & ethnic minority groups
STI Prevalence and Incidence in the US

- **HPV**: 13 M
- **HSV-2**: 18.6 M, 572,000
- **Trichomoniasis**: 6.9 M, 2.6 M
- **Chlamydia**: 4 M, 2.4 M
- **HIV** (ages 13 & older): 32,600, 984,000
- **Gonorrhea**: 1.6 M, 209,000
- **Syphilis** (ages 14 & older): 146,000, 156,000
- **HBV** (ages unavailable): 8,300, 103,000

- **Prevalence**
- **Incidence**

**Women 25% of total costs**

**$1.1 BILLION**
direct medical costs attributed to CHLAMYDIA, GONORRHEA, & SYphilis

**$16 BILLION**
in direct medical costs

Common, preventable infections

Burden of STIs in South Carolina

• According to CDC data on chlamydia, gonorrhea and primary and secondary syphilis, **South Carolina has the 3\(^{rd}\) highest rate for STIs** in the US

• **Richland County, SC** ranks 3\(^{rd}\) among all US counties for STI rate

<table>
<thead>
<tr>
<th>Rank</th>
<th>County</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hinds County, MS</td>
<td>2,253.2</td>
</tr>
<tr>
<td>2</td>
<td>St. Louis City, MO</td>
<td>2,122.6</td>
</tr>
<tr>
<td>3</td>
<td>Richland County, SC</td>
<td>1,939.4</td>
</tr>
<tr>
<td>4</td>
<td>Norfolk City, VA</td>
<td>1,932.9</td>
</tr>
<tr>
<td>5</td>
<td>Richmond County, GA</td>
<td>1,932.2</td>
</tr>
<tr>
<td>6</td>
<td>Baltimore City, MD</td>
<td>1,896.9</td>
</tr>
<tr>
<td>7</td>
<td>Cumberland County, NC</td>
<td>1,776.4</td>
</tr>
<tr>
<td>8</td>
<td>Orleans Parish, LA</td>
<td>1,741.4</td>
</tr>
<tr>
<td>9</td>
<td>Milwaukee County, WI</td>
<td>1,724.7</td>
</tr>
<tr>
<td>10</td>
<td>Richmond City, VA</td>
<td>1,724.6</td>
</tr>
</tbody>
</table>
**Chlamydia** – STI caused by bacterium *Chlamydia trachomatis*; can cause multiple infections (e.g., cervicitis, urethritis, proctitis)

- Spreads through vaginal, anal, or oral sex
- Can also be transmitted from mother-to-child during childbirth
- In women, can lead to pelvic inflammatory disease (PID) infertility, ectopic pregnancy, and chronic pelvic pain
- Often a “**silent infection**”—most people with chlamydia have no symptoms and therefore do not seek testing
- Can cause serious health problems in short- and long-term, as well as serious complications for newborns born to persons with untreated chlamydia
- Chlamydia can be easily cured with antibiotics if we know there!

### South Carolina Chlamydia Cases by Diagnosis Year, Race and Sex

<table>
<thead>
<tr>
<th>Year</th>
<th>Black Male</th>
<th>Black Female</th>
<th>White Male</th>
<th>White Female</th>
<th>Hispanic Male</th>
<th>Other Male</th>
<th>Unknown Male</th>
<th>Unknown Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>3919</td>
<td>3813</td>
<td>3989</td>
<td>4268</td>
<td>4302</td>
<td>4579</td>
<td>4596</td>
<td>5105</td>
</tr>
<tr>
<td>2012</td>
<td>3809</td>
<td>3989</td>
<td>3989</td>
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<td>4302</td>
<td>4579</td>
<td>4596</td>
<td>5105</td>
</tr>
</tbody>
</table>
Gonorrhea – STI caused by bacterium *Neisseria gonorrhoeae*; infects mucous membranes of the reproductive tract (e.g., cervix, uterus, fallopian tubes, urethra)

- Most women with gonorrhea are **asymptomatic** but risk serious and permanent complications from infection
- Untreated gonorrhea in a pregnant person may cause blindness, joint infections, and life-threatening blood infections in the baby
- Many men also asymptomatic; if symptoms, may include dysuria, urethral discharge, testicular or scrotal pain, rectal discharge, anal itching and soreness, bleeding, painful bowel movements
- Gonorrhea can be cured if we know it’s there!
**Syphilis** – STI caused by bacterium *Treponema pallidum*

- Spread person-to-person by direct contact with a syphilitic sore (*chancre*)
- “The Great Pretender”
- Four stages
  - **Primary stage** = Sore at site where syphilis entered your body (i.e., penis, vagina, anus, rectum, lips/mouth)
  - **Secondary stage** = Skin rashes and other symptoms
  - **Latent stage** = No visible symptoms but still in body
  - **Tertiary stage** = Multi-organ and systemic impacts
- Curable with certain antibiotics
- Cases rapidly rising in SC and congenital syphilis continues to be a major concern

![Syphilis Stages Diagram](http://healthlifemedia.com/healthy/understanding-stds-syphilis/)

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**South Carolina Primary and Secondary Syphilis Cases by Diagnosis Year, Race and Sex**
So...what do we do?
Use Effective Screening Practices

US Preventive Service Task Force and others have developed clear recommendations and resources for assessing risk and for screening for STI and HIV.
### Table 1. Current Recommendations and Testing Methods for STIs*

<table>
<thead>
<tr>
<th>STI</th>
<th>Testing method</th>
<th>Population</th>
<th>Additional Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonorrhea</td>
<td>Nucleic acid amplification test (NAAT) preferred from a urine sample or a vaginal/oropharyngeal/rectal swab</td>
<td>Women &lt;25 years who are sexually active, older women at risk, pregnant women if at risk, men who have sex with men (MSM) if at risk, all HIV+ individuals*</td>
<td>Testing should be performed at each anatomic site where exposure may have occurred.</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>Nucleic acid amplification test (NAAT) preferred from a urine sample or a vaginal/oropharyngeal/rectal swab</td>
<td>Women &lt;25 years who are sexually active, older women at risk, pregnant women if at risk, MSM if at risk, all HIV+ individuals*</td>
<td>Testing should be performed at each anatomic site where exposure may have occurred with the exception of oropharyngeal testing, which is not recommended for chlamydia.</td>
</tr>
<tr>
<td>Syphilis</td>
<td>Serum nontreponemal antibody test, such as the rapid plasma reagin (RPR) test, confirmed by serum fluorescent treponemal antibody (FTA) test</td>
<td>Nonpregnant adults and adolescents at increased risk, pregnant individuals, MSM if at risk, all HIV+ individuals*</td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>Serum hepatitis B surface antigen (HbsAg)</td>
<td>Individuals at increased risk, pregnant individuals, and annual screening in HIV+ individuals*</td>
<td></td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>Serum hepatitis C virus (HCV) antibody</td>
<td>Individuals at high risk for infection, annual screening in HIV+**</td>
<td></td>
</tr>
<tr>
<td>HIV**</td>
<td>Serum HIV</td>
<td>Adolescents and adults ages 15 to 65 years for HIV infection; younger adolescents and older adults who are at increased risk should also be screened</td>
<td></td>
</tr>
<tr>
<td>HSV</td>
<td>Type specific serum immunoglobulin G (IgG) antibody only if diagnosis uncertain, swab of lesion with polymerase chain reaction is more specific in patients with symptoms</td>
<td>Based on clinical history, routine screening of asymptomatic patients is not recommended.</td>
<td></td>
</tr>
<tr>
<td>HPV</td>
<td>Cytology, human papillomavirus (HPV) alone, or co-testing</td>
<td>Any patient with a cervix 21-29 years old - cytology; 30-65 years old cytology + HPV every 5 years or HPV alone every 5 years.</td>
<td>Insufficient evidence to recommend for or against anal pap smears†.</td>
</tr>
</tbody>
</table>

* Guidelines for HIV+ and MSM are based on the CDC guideline (2015). All other recommendations are based on the United States Preventive Services Task Force (USPSTF)/American Academy of Family Physicians (AAFP).

** See additional considerations on screening age from the AAFP.

** The AAFP guidelines differ from the USPSTF guidelines for screening age for HIV.
Extragenital testing for gonorrhea and chlamydia in men who have sex with men (MSM) is a high priority for curbing STI rates in the US.

Extragenital testing = Nucleic acid amplification (NAAT) tests from throat and rectal sites.
Consider Extragenital STI Testing for MSM

For help with billing...

*STD Technical Assistance Center* has developed a **coding guide** for use of NAATs with extragenital specimens

**WHY is extragenital testing for men who have sex with men (MSM) needed?**

- Chlamydia and gonorrhea are common in MSM and rates are increasing
- Urine-only screens for chlamydia and gonorrhea miss 70-88% of infections in MSM
- Rectal gonorrhea infections are asymptomatic 85% of the time
- MSM are more likely than other groups to demonstrate antimicrobial resistant gonorrhea
Consider Extragenital STI Testing for MSM

Regardless of condom use, CDC recommends use of Nucleic Acid Amplification Tests (NAATs) as the preferred test for MSM:

• Test for urethral chlamydia and gonorrhea infection in men who have had insertive intercourse in past year
• Test for rectal chlamydia and gonorrhea infection in men who have had receptive anal intercourse in past year
• Test for pharyngeal gonorrhea infection in men who have had receptive oral sex intercourse in past year
US Preventive Service Task Force has clear recommendations and resources for assessing STI and HIV risk and providing behavioral counseling.
USPSTF Recommendations for Behavioral Counseling

• Providers should offer counseling to all sexually active adolescents and to adults who are at increased risk for STIs
• Grade B = moderate evidence

HOW?

• ASSESS sexual behaviors and risk for STIs
• PROVIDE behavioral counseling

Review of evidence for behavioral counseling published in JAMA:
https://jamanetwork.com/journals/jama/fullarticle/2769473

USPSTF Recommendations for Behavioral Counseling

• **ASSESS** sexual behaviors and risk for STIs. Factors that increase risk:
  • Being diagnosed with an STI in past year
  • Inconsistent or no condom use
  • Multiple sex partners or high-risk partners
  • Belonging to a community with high STI prevalence (e.g., sexual and gender minority group, illicit drug use, recent incarceration, sex work, minoritized by race and/or ethnicity)
USPSTF Recommendations for Behavioral Counseling

• **PROVIDE** behavioral counseling
  • Deliver counseling messages in person, refer to another source, or inform about media-based interventions
  • Range of interventions show promise (i.e., brief counseling interventions <30 minutes in single session to multiple session group interventions)
  • Educate on common STIs and STI transmission
    • Aim to increase motivation or commitment to safer sex practices
    • Provide training in condom use
    • Communicate about safer sex, problem solving, and other pertinent skills

https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/sexually-transmitted-infections-behavioral-counseling
Consider PrEP

PrEP reduces the risk of acquiring HIV through sex by ~99% if taken daily.
Improving STI Prevention & Care through Partnerships

CDC Health Equity Initiative
Funded by the CDC Foundation

RURAL & MINORITY Health Research Center
Rationale

• South Carolina is a focus of the **Ending the HIV Epidemic (EHE) Program** because:
  • >10% of new HIV diagnoses in 2016 & 2017 were in rural areas (<50,000 population);
  • At least 75 total new diagnoses statewide (**SC = 773 in 2017**);
  • No priority county.
• New analysis by our team (**in preparation: Giannouchos et al., 2022**) has shown:
  • Chlamydia & Gonorrhea more likely among rural Medicaid beneficiaries compared to urban Medicaid beneficiaries
Rationale

• South Carolina is a focus of the Ending the HIV Epidemic (EHE) Program because:
  • >10% of new HIV diagnoses in 2016 & 2017 were in rural areas (<50,000 population);
  • At least 75 total new diagnoses statewide (SC = 773 in 2017!);
  • No priority county.

• New analysis by our team (in preparation: Giannouchos et al., 2022) has shown:
  • Chlamydia, Gonorrhea, & HIV
  • More likely among racial and ethnic minority residents of South Carolina than those who are not minoritized by race or ethnicity
Rationale

- Barriers in access to care for rural residents are exacerbated by systemic factors, including stigma (Harrison et al., 2022; Valentine et al, 2022)

- Recent study to better understand barriers to PrEP in rural communities in North Carolina and South Carolina was recently published in AIDS Care

- Used social determinants of health (SDOH) as a framework to identify rural barriers to PrEP scale-up
  - 14 Key Informant Interviews (KII)
  - 3 Focus Group Discussions (FGD) with 23 young men who have sex with men and transgender women (YMSM/TGW)
Rationale

- The South has a unique historical and socio-political context
- Structural challenges are complex and interconnected
- Persistent racism, racial discrimination, and segregation in the rural South continue to impact HIV and STI prevention

“It’s hard to tease out racism versus socio-economic differences that lead to less healthcare, less trust in the healthcare system, less access...It’s hard to tease out ...what’s pure racism versus a society that set up these over years and years of historical [discrimination]"
Project Objectives

1. Reduce bacterial STI prevalence in rural South Carolina.

2. Through education and training, support providers in rural areas to conduct multi-site extragenital testing for patients taking PrEP.

3. Explore partnership with South Carolina Medicaid to adopt this method as a quality improvement initiative.
Select Project Activities

• Identify rural “hotspot” areas for HIV and STIs
• Describe rural healthcare infrastructure for providing PrEP services
• Assess awareness of HIV/PrEP in rural areas
• Develop a quality improvement initiative that addresses prevention of STIs/HIV
  • Develop educational opportunities
  • Create a curriculum on multi-site extragenital STI testing for patients taking PrEP
Defining rural South Carolina hotspots: Eligible Counties

<table>
<thead>
<tr>
<th>Abbeville County</th>
<th>Greenwood County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allendale County</td>
<td>Hampton County</td>
</tr>
<tr>
<td>Bamberg County</td>
<td>Lee County</td>
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<tr>
<td>Barnwell County</td>
<td>Marion County</td>
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<td>Cherokee County</td>
<td>Marlboro County</td>
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<tr>
<td>Chesterfield County</td>
<td>McCormick County</td>
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<tr>
<td>Clarendon County</td>
<td>Newberry County</td>
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<tr>
<td>Colleton County</td>
<td>Oconee County</td>
</tr>
<tr>
<td>Dillon County</td>
<td>Orangeburg County</td>
</tr>
<tr>
<td>Georgetown County</td>
<td>Williamsburg County</td>
</tr>
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<table>
<thead>
<tr>
<th>Top 10 Counties</th>
<th>Rate Per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleton County</td>
<td>54</td>
</tr>
<tr>
<td>Georgetown County</td>
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<td>Williamsburg County</td>
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<tr>
<td>Abbeville County</td>
<td>28</td>
</tr>
<tr>
<td>Dillon County</td>
<td>28</td>
</tr>
</tbody>
</table>
**SC DHEC PrEP Utilization Data**

- Agencies in South Carolina providing comprehensive PrEP Services:
  - AID Upstate (Greenville)
  - Affinity Health Center (Rock Hill)
  - CAN Community Health (Columbia)
  - Careteam+ (Myrtle Beach/Conway)
  - PALSS (Columbia)
  - Palmetto Community Care (Charleston)

- Counties **not** within reach of these agencies: Abbeville, Allendale, Barnwell, Cherokee, Chesterfield, Colleton, Dillon, Edgefield, Hampton, Laurens, McCormick, and Union
## Chlamydia prevalence (2018)

### Top 10 Counties

<table>
<thead>
<tr>
<th>County</th>
<th>Rate Per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allendale County</td>
<td>1434.3</td>
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<tr>
<td>Lee County</td>
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<tr>
<td>Orangeburg County</td>
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<tr>
<td>Dillon County</td>
<td>1091.1</td>
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<tr>
<td>McCormick County</td>
<td>1027.2</td>
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<tr>
<td>Bamberg County</td>
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</tr>
<tr>
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<tr>
<td>Newberry County</td>
<td>926</td>
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<tr>
<td>Clarendon County</td>
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Gonorrhea prevalence (2018)

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<thead>
<tr>
<th>Top 10 Counties</th>
<th>Rate Per 100,000</th>
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</thead>
<tbody>
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<td>Marlboro County</td>
<td>606.8</td>
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<tr>
<td>Lee County</td>
<td>571.5</td>
</tr>
<tr>
<td>McCormick County</td>
<td>546.7</td>
</tr>
<tr>
<td>Williamsburg County</td>
<td>416.3</td>
</tr>
<tr>
<td>Greenwood County</td>
<td>380</td>
</tr>
<tr>
<td>Hampton County</td>
<td>375.1</td>
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<tr>
<td>Newberry County</td>
<td>346.3</td>
</tr>
<tr>
<td>Clarendon County</td>
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</tr>
<tr>
<td>Chesterfield County</td>
<td>327.8</td>
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<td>Oconee County</td>
<td>323.5</td>
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</table>
# Syphilis Prevalence (2018)

## Top 10 Counties

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<th>County</th>
<th>Rate Per 100,000</th>
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<td>Marion County</td>
<td>11.4</td>
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<td>Greenwood County</td>
<td>9.9</td>
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<tr>
<td>Dillon County</td>
<td>9.8</td>
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<tr>
<td>McCormick County</td>
<td>9.7</td>
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<tr>
<td>Abbeville County</td>
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<td>Colleton County</td>
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<tr>
<td>Bamberg County</td>
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<tr>
<td>Lee County</td>
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<tr>
<td>Georgetown County</td>
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</tbody>
</table>
# HIV Prevalence (2018)

<table>
<thead>
<tr>
<th>Top 10 Counties</th>
<th>Rate Per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee County</td>
<td>760.8</td>
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<tr>
<td>Williamsburg County</td>
<td>703.4</td>
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<tr>
<td>Bamberg County</td>
<td>688.4</td>
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<tr>
<td>Allendale County</td>
<td>622.1</td>
</tr>
<tr>
<td>Orangeburg County</td>
<td>585.3</td>
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<tr>
<td>Marion County</td>
<td>559.2</td>
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<td>Hampton County</td>
<td>545.9</td>
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<tr>
<td>Barnwell County</td>
<td>477.9</td>
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<tr>
<td>Marlboro County</td>
<td>466.0</td>
</tr>
<tr>
<td>Clarendon County</td>
<td>434.6</td>
</tr>
</tbody>
</table>
Identified Target Counties

- Bamberg
- Georgetown
- Marion
- Orangeburg
Goal: Increase Provider Awareness

• Led by SCORH provider services team
• Technical assistance to improve provider awareness and knowledge about STIs (i.e., Gonorrhea, Syphilis, Chlamydia) and HIV, as well as encourage rural practices to implement strategies to increase STI testing and treatment

• Strategies will include the following:
  • Complete an assessment that describes their patient population and current STI screening and treatment practices, including PrEP prescription practices
  • View and complete a total of three (3) educational modules regarding STIs
  • Participate in post-learning discussions to develop and test an improvement strategy related to HIV and STI testing/treatment
<table>
<thead>
<tr>
<th>Educational Offerings: Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressing STI and HIV Prevention &amp; Treatment for Rural Populations: A Call to Action</td>
</tr>
<tr>
<td>Clinical Guidelines – General STI and HIV Prevention &amp; Treatment</td>
</tr>
<tr>
<td>Clinical Guidelines – PrEP Utilization</td>
</tr>
<tr>
<td>Clinical Guidelines – Exogenous STI Testing for PrEP Users</td>
</tr>
<tr>
<td>How to Talk to Patients about STIs and HIV</td>
</tr>
<tr>
<td>Practice Management for STI and HIV Prevention &amp; Treatment</td>
</tr>
</tbody>
</table>
Forthcoming Curriculum: Topics

- Public Health Need – STIs in South Carolina
- Clinical Guidelines
- Best Practices, Clinical Tools, and Resources for STI Prevention & Treatment
- Practice Management for STI Prevention & Treatment
- Quality Improvement Initiatives
- Action Plan Development
Other Educational Opportunities

SC HIV/AIDS Clinical Training Center at UofSC School of Medicine
http://schivtc.med.sc.edu/

Part of the AIDS Education and Training Center (AETC) Program
Other Educational Opportunities


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Questions? Comments?

Sayward Harrison, PhD
harri764@mailbox.sc.edu
http://www.healthyfutureslab.com
References


